REMARKS

Claims 1-16 are pending in this application. The independent claims are 1, 7 and 12, and each of these independent claims has been amended.

In paragraph 2 of the Office Action, claims 1-16 were rejected under 35 USC 101 as being directed to non-statutory subject matter.

In accordance with the Examiner's suggestion, independent claims 1, 7 and 12 have been amended to recite that the actions are performed by a computer. The dependent claims inherit the recitation of a computer.

Withdrawal of the rejection of claims 1-16 under 35 USC 101 is requested.

In paragraph 4 of the Office Action, claims 1-16 were rejected under 35 USC 102(e) as being anticipated by U.S. Patent 6,505,174 (Keiser).

The present invention

The present invention relates to a market (umpire) program that provides services to trading (ELF) programs (page 4, lines 12-18). Each order is represented by a trading program, rather than by the conventional fixed terms, which provides enormous flexibility in representing trading strategies (page 5, lines 1-3).

The market program maintains an order book. Trading programs can place orders with the market program to be included in the book (page 6, lines 18-20). Alternatively, a trading program can register with the market program to receive notices from the market program (page 7, lines 1-3). The enormous flexibility of a trading program allows it to respond to the notices from the market program according to the strategy selected by the owner of the trading program (page 8, lines 9-15).

Trading programs can also request a price quote from the market program (page 6, lines 5-6). When the market program receives a price request from a requesting trading program, the market program finds a book price from its booked orders . Next, the market program compares the booked price with the price at which the most recent trade, i.e., match between a buyer and seller, occurred (page 10, lines 14-15).

If the book price is different than the most recent trade price, then the market program engages in a *price discovery procedure*. Specifically, the market program sends a notice to its registered trading programs, offering them an opportunity to improve on the book price (page 10,

lines 19-22). The best price, if any, from the registered trading programs is called the crowd price.

Finally, the market program responds to the requesting trading program with the crowd price, or, if there is no crowd price, with the book price (page 11, lines 2-7).

An advantage of the present invention is that it enables undisclosed market liquidity to automatically participate in price improvement.

In contrast, in conventional trading systems, in order to automatically participate in the market, an order has to be left in the book, which means the size of the order is disclosed to the public, and may cause adverse price pressure for the owner of the order. Consequently, parties with large orders prefer a human trader, to maintain confidentiality as to their order size (page 2, lines 1-3).

Keiser

Keiser discloses a market program for use by human traders (page 6, lines 45-49, Figs. 8-11). The market program maintains an order book. A human trader can place her order in the order book. The market program also participates in the market as a trade in minimize price volatility.

In Keiser's first embodiment, at periodic times, the batch of disclosed orders accumulated in the most recent period is evaluated to determine the buy/sell quantity imbalance and the price for the orders in the batch is set according to a formula (column 9, lines 30-37, column 11, lines 60-63). If the imbalance in buy vs. sell orders exceeds a threshold, the market program generates additional orders and places them into the batches (column 13, lines 8-17).

In Keiser's second embodiment, trading occurs continuously. The market program determines the price of the trade according to the disclosed orders stored in its book (column 15, lines 33-35, 48; column 18, lines 55-57). A ghost trading system randomly creates ghost trades to influence price movement (column 20, lines 25-36).

Keiser fails to show or suggest a price discovery procedure that enables undisclosed liquidity to participate in the market. Instead, in each of Keiser's embodiments, the price is determined according to an algorithm based on disclosed orders in the book maintained by the market program.

Claim 1

Claim 1 relates to a method of providing a published price for a security. A program executing on a computer notifies a set of computer program entities of a proposed price for buying or selling a pending number of shares of a security. The program determines whether any of the computer program entities has offered an improved price. The program provides the improved price as the published price.

Keiser fails to show or suggest notifying a set of computer program entities of a proposed price, as specifically required by claim 1, and further fails to show or suggest determining whether any of the computer program entities has offered an improve price. Accordingly, claim 1 is not anticipated by Keiser.

Claims 2-6, in depending from claim 1, each incorporate all of the limitations of the parent claim, and so each of the dependent claims is also patentably distinguished from Keiser for the reasons discussed above.

Claim 7

Claim 7 relates to a method of participating in pricing of a security performed by a program executing on a computer. The program receives a proposed price for a pending number of shares of the security, determines whether to improve upon the proposed price, and when the determination is affirmative, offers an improved price.

Keiser fails to show or suggest a program that receives a proposed price and offers an improved price, as specifically recited in claim 7. At most, when Keiser's market program is functioning as a trading program, the trading program will generate additional unpriced orders; Keiser never specifically offers an improved price. Thus, claim 7 is not anticipated by Keiser.

Claims 8-11, in depending from claim 7, each incorporate all of the limitations of the parent claim, and so each of the dependent claims is also patentably distinguished from Keiser for the reasons discussed above.

Claim 12

Claim 12 relates to a method of setting a price for a security performed by a program executing on a computer. The program maintains an order book including orders to buy or sell specified quantities of the security at respective prices, the lowest sell order price of the booked orders being the book sell price, the highest buy order price of the booked orders being the book buy order price.

The program engages in a price discovery procedure with a set of computer program entities before responding to a request for a current buy or sell price of the security to produce a discovered price, and provides the discovered price as the current buy or sell price, the discovered price being better than the book buy or sell price,

Keiser fails to show or suggest engaging in a price discovery procedure before responding to a request for a price, as specifically recited in claim 12, and further fails to show or suggest a discovered price that is better than the book price, as specifically required. Accordingly, claim 12 is not anticipated by Keiser.

Claims 13-16, in depending from claim 12, each incorporate all of the limitations of the parent claim, and so each of the dependent claims is also patentably distinguished from Keiser for the reasons discussed above.

Withdrawal of the rejection of claims 1-16 under 35 USC 102(e) is requested.
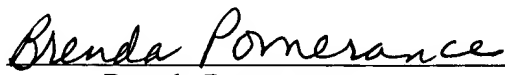
Conclusion

The instant application is believed to be in condition for allowance.

Early and favorable consideration is solicited. The Examiner is invited to call the undersigned to discuss any issues.

Respectfully submitted,

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